

Table 1
Health Effects Assessment Plan
Outline of Tiers

Tier I - Analyses of chemicals

Whole smoke
 acidity (pH)
 reduction/oxidation potential
Gas phase
 gases
 carbon monoxide
 hydrogen cyanide
 nitric oxide
 aldehydes
 acetaldehyde
 acrolein
 propionaldehyde
volatile hydrocarbons
 benzene
 toluene
 1,3-butadiene
 isoprene
volatile nitrosamines
 N-nitrosodiethylamine
 N-nitrosodimethylamine
 N-nitrosopyrrolidine
Particulate phase
 catechol
 nicotine
 phenols, as phenol
 polyaromatic hydrocarbon
 benzo(a)pyrene
tar-FTC
tobacco specific nitrosamines
 N'-nitrosonornicotine
 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone

Tier II- In Vitro Tests

Salmonella mutagenicity (Ames' assay)
mouse embryo fibroblast cell transformation assay

Tier III - Human Smoking Behavior

cotinine
carbon monoxide
topography

Tier IV - Animal Tests

mouse inflammatory lung response
hamster upper respiratory tract carcinogenicity
mouse skin painting carcinogenicity